400 Seventh Street, S.W.

Washington, D.C. 20590



U.S. Department of Transportation

Research and Special Programs Administration

Mr. David W. MacKay Transportation Regulatory Affairs Manager Ethyl Corporation 330 South Fourth Street Richmond, VA 23219-4304

Dear Mr. MacKay:

Enclosed is a copy of the third revision of DOT-E 9548 which has been granted until May 31, 2002. Please note that paragraph 10 has been modified to require a copy of the exemption to accompany each shipment by motor vehicle. This requirement is consistent with numerous other bulk packaging exemptions.

Sincerely,

R. Ryan Posten

Exemptions Program Officer
Office of Hazardous Materials
Exemptions and Approvals

Enclosure



Research and Special Programs Administration 400 Seventh Street, S.W. Washington, D.C. 20590

DOT-E 9548 (THIRD REVISION)

EXPIRATION DATE: May 31, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. <u>GRANTEE</u>: Ethyl Corporation Richmond, VA

## 2. PURPOSE AND LIMITATION:

- a. This exemption authorizes the transportation in commerce of a non-DOT specification IMO Type I portable tank. This exemption provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.
- b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.
- 3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
- 4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.244.
- 5. <u>BASIS</u>: This exemption is based on the application of Ethyl Corporation dated May 23, 2000, submitted in accordance with § 107.109.
- 6. HAZARDOUS MATERIALS (49 CFR § 172.101):

| Proper Shipping Name/<br>Hazardous Materials Description | Hazard<br>Class/<br>Division | Identi-<br>fication<br>Number | Packing<br>Group |
|--|------------------------------|-------------------------------|------------------|
| Motor fuel anti-knock mixtures                           | 6.1                          | UN1649                        | I                |

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- 7. SAFETY CONTROL MEASURES: PACKAGING Packaging prescribed is a non-DOT specification portable tank, mounted in an ISO frame, designed and constructed in accordance with Fruehauf S.A. drawing number 840236, other drawings, technical specifications and calculations on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA) and in compliance with the following:
  - (a) Code -- Compliance with DOT Specification 51 except that the tanks are not ASME Code "U" stamped; IMO Type 1.
  - (b) Insulation -- None.
  - (c) Water Capacity (U.S. Gallons) -- 3,038.
  - (d) Material -- Spanish fine grain carbon steel A52D, Yield strength 51,090 psi; Tensile strength 73,800 psi; Equivalent to ASTM A516 grade 70.
  - (outside dia.) X (length) X (thickness)
    (e) Tank Size (inches) 65.75 224.5 0.3504 (min)

Head Thickness -- 0.3740 (min) Weld Joint Efficiency -- 1.0 Corrosion Allowance -- 0.0

(f) Design Pressure (PSIG) -- 200

Note: Design pressure means "maximum allowable working pressure (MAWP)" as used in the ASME Code.

- (g) Test Pressure, Minimum (PSIG) -- 300
- (h) Openings -- One (1) 20 inch diameter manhole containing filling and discharge connections, vent connection, pressure relief device connection a blank flange on top; no bottom outlets.
- (i) Tank surface area (square feet) -- 342
- (j) Pressure Relief Devices -- One (1) 1.5 inch diameter spring loaded safety relief valve in series with and outboard of a rupture disc both set at 200 psig. Total relief device capacity is 256,800 SCFH.

- (k) G-Loadings: Vertical down <u>2;</u> Vertical up <u>2;</u> Longitudinal <u>2;</u> and Transverse <u>2.</u>
- (1) Maximum Gross Weight (pounds) -- 51,000
- (m) Maximum Commodity Weight (pounds) -- 38,610
- (n) Tare Weight (pounds) -- 12,390
- (o) Design Specific Gravity -- 1.52

## 8. <u>SPECIAL PROVISIONS</u>:

- a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.
- b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.
- c. Each portable tank must be plainly marked on both sides near the middle, in letters at least two inches high on a contrasting background, "DOT-E 9548".
- d. Hydrostatic test certificates for each tank must be maintained by the owner or manufacturer at its principal business office and be made available to any representative of the DOT upon request.
- e. Each portable tank must be marked "MOTOR FUEL ANTIKNOCK COMPOUND" or "ANTIKNOCK COMPOUND".
- f. The tank must be filled so as not to be liquid full at less than or equal to  $130^{\circ}F_{\cdot}$
- g. Each tank must be (i) visually inspected prior to each trip to insure that it has not been damaged on the previous trip; and (ii) retested and reinspected once every five years in accordance with § 173.32 as prescribed for DOT Specification 51 portable tanks.
- h. Portable tanks may not be transported in container-on-flat car (COFC) or trailer-on-flat car (TOFC) service except under conditions approved by the Associate Administrator for Safety, Federal Railroad Administration.

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- i. "DOT-E 9548" must be stamped on the metal manufacturer's data plate on the line which reads "U.S. DOT Specification No.".
- j. For each portable tank, the manufacturer must prepare a certificate which must be signed by a responsible official of the manufacturer and an independent inspection agency certifying that the portable tank is designed and constructed in accordance with the ASME Code and this exemption. The certificate for the first portable tank fabricated must be submitted to the OHMEA prior to the initial shipment.
- k. The construction of all portable tanks authorized by this exemption started after November 1, 1986, must be in full conformance with ASME Code including the "U" stamp.
- 9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel.
- 10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each motor vehicle and cargo vessel used to transport packages covered by this exemption.
- 11. <u>COMPLIANCE</u>: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 <u>et seg</u>:
  - o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
  - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

- 12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.
  - a. The owner of the tanks covered by this exemption must provide to the OHMEA a list of all shippers who have shipped under this exemption and a shipping experience report every six months from the effective date of this exemption. The shipping experience report must contain approximate number of shipments made during the previous six months and any difficulties encountered.
  - b. The holders or parties to this exemption, as identified in paragraph 1 above, must contact the OHMEA immediately after any of the tanks covered by this exemption are sold to another party.

Issued at Washington, D.C.:

Robert A. McGuire

Acting Associate Administrator for

Hazardous Materials Safety

JUN 1 4 2000

(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

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